

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

| | | |
|----------------------------------|---|----------------------------|
| VIDEOLABS, INC., | § | |
| | § | Case No. 6:21-cv-00456-ADA |
| | § | |
| Plaintiff, | § | |
| | § | Jury Trial Demanded |
| vs. | § | |
| | § | |
| DELL TECHNOLOGIES, INC. and DELL | § | |
| INC., | § | |
| | § | |
| Defendants. | § | |

PLAINTIFF'S RESPONSIVE CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

The Court should reject Defendants’ six constructions because they are riddled with two fundamental errors. Defendants’ *first* error is asserting that a person skilled in video and audio encoding and decoding technology would not understand four of the claim terms to refer to any known structure in the field. Defendants’ assertion is not supported by any analysis of a skilled artisan’s understanding of the claim language. Rather, Defendants view the claim language in isolation and make the bare assertion that a skilled artisan would have no understanding. Without evaluating the claims from the perspective of a skilled artisan, Defendants cannot meet the clear and convincing standard to prove any of the disputed claim terms are invalid as indefinite. *One-E-Way, Inc. v. Int’l Trade Comm’n*, 859 F.3d 1059, 1062 (Fed. Cir. 2017). The reality is that the four terms Defendants assert are indefinite refer to known structures in the field of audio and video encoding and decoding, as confirmed by VideoLab’s preeminent expert, Dr. Iain Richardson (Ex. 1) and the patents.

Defendants’ *second* error—a “cardinal sin[]” in the law of claim construction—is seeking to limit two disputed terms by taking exemplary embodiments described in a patent’s specification and reading them into the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (*en banc*). This is per se improper and should be rejected by the Court.

II. BACKGROUND OF THE TECHNOLOGY

Plaintiff asserts three patents: U.S. Patents 7,769,238, 8,139,878, and 7,970,059. The parties dispute terms only within the ’238 and ’059 patents. The asserted patents are directed toward audio/video encoders and decoders. Video “coding” refers to the encoding and decoding of video content. Ex. 1, ¶ 30. Video compression techniques minimize the size of the data that is sent between the encoder and the decoder by removing redundancies and imperceivable changes. *Id.* Video is comprised of a series of frames. Ex. 1, ¶ 31. These frames are successively output to

create the moving pictures that we recognize as video. *Id.* Once redundancy in the video content has been minimized and imperceptible details have been streamlined, a process called “entropy encoding” further compresses the data by attempting to use as few bits as possible to represent the data, while still ensuring fidelity to the original visual content. Ex. 1, ¶ 32. This may be achieved by allocating the fewest bits to commonly appearing bit sequences, and the most bits to infrequently occurring bit sequences. Ex. 1, ¶ 41. By way of analogy, when training your dog, the commands you use most frequently are likely the shortest, single-word commands, like “sit” and “no.” But commands that you need less frequently may be longer, such as “wait for it” and “roll over.” In this way, over the course of a week, you expend fewer (verbal) resources. Entropy encoding applies this same principle to the bits of data that comprise video content.

There are standardized ways to represent sequences of bits, and depending on the type of entropy coding, these sequences are stored in either “coding tables” or “probability tables.” Ex. 1, ¶¶ 39, 53. Entropy coding involves selecting the optimal table for the data being transmitted and ensuring that the decoder knows the proper table to use when decoding the data.

It was in this context that the inventors made their contributions. For example, the ’238 patent, titled “Picture Coding Method and Picture Decoding Method,” is directed to a type of coding called “Context-based Adaptive Variable Length Coding.” ’238 patent at 1:49-52. The Background of the ’238 patent discusses video encoders and decoders in relation to International Standard ISO/IEC 14496-2, also known as MPEG-4, which was a well-known coding standard at the time of the invention. *Id.* at 1:33-38. Under the conventional method described there, video encoders perform variable length coding using a single variable length coding (“VLC”) table. *Id.* at 1:19-38. The inventors recognized that using only one VLC table “contains a problem that coding efficiency differs greatly depending on a quality of a current picture to be coded.” *Id.* at

1:39-44. The inventors of the '238 patent recognized that coding efficiency could be greatly increased by use of a plurality of VLC tables. Specifically, the inventors recognized that neighboring blocks were a good predictor of the block being analyzed, and so could be used to select the optimal coding table for the block, yielding enhanced compression. *See, e.g., id.* at 9:34-3713:4-11. Prior techniques lacked this level of sophistication and did not take advantage of the predictive power provided by analyzing the surrounding blocks. Due to these limitations in the use of coding tables, compression efficiency in previously known entropy coding techniques would vary significantly between different types of content, and generally decreased as the quality of content increased. *Id.* at 1:39-44. The inventors overcame these and other problems.

Similarly, the '059 patent describes an advance in video compression that involves the novel use of tables. The '059 patent describes a type of entropy coding referred to as "Context Adaptive Binary Arithmetic Coding," or "CABAC," that relies on probability tables. *See* '059 patent at 1:37-42. CABAC can optimize and adapt its selection of probability estimates for image data based on the context of the data. *See id.* at 2:33-51. The '059 patent teaches performing arithmetic coding by using predefined probability tables to compress the data. *See, e.g., id.* at 1:60-2:2. Probability tables are known to both the encoder and the decoder, and therefore can be used to encode and decode data. *Id.* at 6:13-14. By way of analogy, a person communicating weather data could take advantage of probabilities given the context of the geographic region. For example, in a geographic region that regularly has rain (e.g., a rain forest) one could send a short code of information to represent rain (e.g., one bit of information), while less likely whether (e.g., snow in a rain forest) could require more information (e.g., two or three bits of information).

The '059 patent teaches that a particular sequence of probability tables may be determined in advance, and the encoder (and the decoder) may proceed through the tables in that

predetermined order without reversing direction. *See, e.g., id.* at 2:48-51. The inventors realized this approach takes advantage of the natural ordering of data and the context surrounding it. *See id.* at 2:52-56. This adaptation increases the efficiency of the coding, meaning that data may be communicated more accurately and/or with a smaller number of bits. *See id.* at 3:7-11.

A more extensive background of the patents-in-suit and the technology is contained in Dr. Iain Richardson's Declaration. Ex. 1 at ¶¶ 28-42.

III. PERSON OF ORDINARY SKILL IN THE ART ("POSITA")

The disputed claim terms need to be evaluated from the perspective of a POSITA. But Defendants never identify what constitutes such a person in the context of the patents-in-suit, a fundamental error in their analysis. Here, a POSITA would include someone who has a bachelors or graduate degree in computer science, mathematics, engineering, or a similar discipline together with knowledge of media encoding and/or decoding and related systems and standards, with approximately two years of experience in the field relating to media encoding and/or decoding. Ex. 1, ¶ 20. The required levels of educational and industry experience are on a sliding scale relative to each other. *Id.* For example, a person of ordinary skill could potentially have no educational degree but more industry experience or, conversely, could have something higher than an undergraduate degree with fewer years of industry experience. *Id.*

IV. DISPUTED TERMS¹

a. Disputed Term of the '238 Patent

1. **"a unit configured to obtain the residual block image of the current block by performing inverse quantization and inverse orthogonal transformation on the coefficients corresponding to the residual block image of the current block"**

¹ VideoLabs addresses the terms in the order mandated by the Court's OGP.

| VideoLabs' Proposed Construction | Defendants' Proposed Construction |
|--|---|
| <p>No construction necessary</p> <p><i>Alternatively</i>, if found to be subject to 35 U.S.C. § 112, ¶ 6, the function is recited in the claim and the structure(s), act(s), or material(s) corresponding to this phrase are inverse quantizing unit 1405 and inverse orthogonal transforming unit 1406, and equivalents thereof</p> | <p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Function: obtain the residual block image of the current block by performing inverse quantization and inverse orthogonal transformation on the coefficients corresponding to the residual block image of the current block</p> <p>Structure: Indefinite</p> |

Primary Dispute: Whether the claim term refers to a structure.

What the Court Should Find: Section 112, ¶ 6 does not apply because a POSITA would understand the term to refer to known structure. Inverse quantization and inverse orthogonal transformation were well-known functions of video decoders at the time of the invention and the disputed claim language refers to a known part of a video decoder for performing those functions.

Section 112, ¶ 6 does not apply to all functional language, and because this term lacks the word “means,” there is a presumption that § 112, ¶ 6 does not apply. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). Here, Defendants fail to carry their burden of rebutting this presumption. *See id.* at 1349. The presumption against § 112, ¶ 6 is overcome only when the claim term as a whole contains purely functional language without conveying **any** structure to perform that function. *Id.* at 1351. A term does not invoke § 112, ¶ 6 when “persons skilled in the art would understand the claim language to refer to structure, assessed in light of the presumption that flows from the drafter’s choice not to employ the word ‘means.’” *Samsung Elecs. Am., Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1354 (Fed. Cir. 2020); *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (§ 112, ¶ 6 does not apply when “the claim language, read in light of the specification, recites sufficiently definite structure.”).

Defendants fail to identify the POSITA or discuss how such a person would understand this term. Defendants thus cannot carry their burden to overcome the presumption that § 112, ¶ 6

does not apply. Indeed, Defendants err in considering only the claim term in isolation, with no consideration of the specification or the understanding of a POSITA. Opening Br. at 16-18; *Huawei Techs. Co. v. T-Mobile US, Inc.*, No. 2:16-CV-00055-JRG-RSP, 2017 WL 2190103, at *15 (E.D. Tex. May 17, 2017) (“Defendants err by focusing on the word ‘unit’ in isolation from the broader language and requirements of the claim.”). Rather than performing the required analysis, Defendants cite a few cases holding in their unique circumstances that different claim terms in different patents including the word “unit” were governed by § 112, ¶ 6. That is, Defendants seek a hardline rule that § 112, ¶ 6 automatically applies when a term includes the word “unit.” This is inconsistent with the Federal Circuit-mandated presumption against § 112, ¶ 6. Indeed, numerous cases hold that “unit” terms do not invoke § 112, ¶ 6, demonstrating that such a hardline rule is incorrect.² Moreover, the presumption against § 112, ¶ 6 stands even when the word “unit” is used without any identifying prefix. *Huawei Techs. Co.*, 2021 WL 150442, at *11, *37 (E.D. Tex. Jan. 15, 2021) (“a first unit configured to ...” and “a second unit configured to ...” did not invoke § 112, ¶ 6). Use of the word “unit” alone presumptively does not trigger § 112, ¶ 6.

A. To a POSITA, The Term Connotes The Portion of a Video Decoder That Performs Known Decoding Functions of Inverse Quantization and Inverse Orthogonal Transformation

The claim and specification confirm for a POSITA that the disputed term refers to a portion of a video decoder, a known structure at the time of the invention. Ex. 1, ¶ 45. As the extrinsic

² *Prisua Eng’g*, 948 F.3d, 1354 (“digital processing unit”); *Huawei Techs. Co. v. Verizon Commc’ns, Inc.*, No. 2:20-CV-00030-JRG, 2021 WL 150442 (E.D. Tex. Jan. 15, 2021) (In determining that “acquisition unit,” “conversion unit,” and “transmission unit” did not invoke § 112, ¶ 6, holding that “[t]he presumption against applying § 112, ¶ 6 to the ‘... unit configured to ...’ and ‘... subunit configured to ...’ terms stands.”); *Optis Wireless Tech., LLC v. Apple Inc.*, No. 2:19-CV-00066-JRG, 2020 WL 1692968, at *21 (E.D. Tex. Apr. 7, 2020) (“selecting unit”); *Vocalife LLC v. Amazon.com, Inc.*, No. 2:19-CV-00123-JRG, 2020 WL 1698779, at *22 (E.D. Tex. Apr. 6, 2020) (“sound source location unit”); *Align Tech., Inc. v. 3Shape*, No. CV 17-1648-LPS, 2021 WL 2320139, at *12 (D. Del. June 7, 2021) (“detector unit”); *Polar Electro Oy v. Suunto Oy*, No. 1:17-CV-0139 CW, 2020 WL 4596932, at *4 (D. Utah Aug. 11, 2020).

evidence demonstrates, a video decoder is hardware and/or software for performing known decoding functions. *Id.* And a POSITA would understand that the disputed term is known hardware and/or software of a decoder for performing the known functions of inverse quantization and inverse orthogonal transformation. *Id.* at ¶ 47. This understanding is supported by the patent itself as much of the patent's specification concerns decoding functionality. The patent is related to "coding an image digitally so as to transfer or store it." '238 patent at 1:1-15. The patent describes "coding [] moving pictures" (1:19) and discusses the invention in the context of MPEG-4, a well-known standard for video coding at the time of the invention. *Id.* at 1:33-37; Ex. 1, ¶ 43-44.

Moreover, the claim language confirms that the disputed term is a structure within the decoder for performing specific decoding functionality. Claim 1 of the '238 patent comprises a "picture decoding unit" (highlighted in green), which includes a block decoding unit (highlighted in red) and the disputed term (highlighted in yellow):

1. A receiving apparatus which receives multiplexed data which is obtained by multiplexing coded audio data and coded picture data, said receiving apparatus comprising:

* * *

a picture decoding unit configured to decode the separated coded picture data, wherein said picture decoding unit includes a block decoding unit configured to decode coded block data included in the coded picture data, the coded block data being obtained by dividing a picture signal into plural blocks, generating a residual block image from a block image of the respective blocks and a predictive block image obtained by intra-picture prediction or inter-picture prediction, and coding, on a block basis, coefficients obtained by performing orthogonal transformation and quantization on the residual block image,

said block decoding unit includes:

a coefficient number decoding unit configured to decode the coded block data to obtain the number of non-zero coefficients which are coefficients included in a current block to be decoded and having a value other than "0";

a unit configured to obtain coefficients corresponding to a residual block image of the current block by decoding the coded block data;

a unit configured to obtain the residual block image of the current block by performing inverse quantization and inverse orthogonal transformation on the coefficients corresponding to the residual block image of the current block; and

a reproducing unit configured to reproduce a block image of the current block, from the obtained residual block image and a predictive block image obtained by intra-picture prediction or inter-picture prediction,

'238 patent, claim 1 (excerpted).

Walking through the claim, a POSITA would understand that the “picture decoding unit” is a video decoder, which was a well-known structure at the time of the invention. Ex. 1, ¶ 45. And, as shown by the highlighting above, the picture decoding unit (decoder) includes the disputed claim term—i.e., the unit for performing the decoding functionalities of obtaining a residual block image by performing inverse quantization and inverse orthogonal transformation. *Id.* at ¶ 46.

A POSITA would recognize that this disputed term is hardware and/or software of the picture decoding unit for performing inverse quantization and inverse orthogonal transformation. The record evidence demonstrates that inverse quantization and inverse orthogonal transformation on block images were well-known functions of video decoders at the time of the invention—meaning that the disputed claim term necessarily connotes structure within a decoder to a POSITA. Ex. 1, ¶ 44-47. A POSITA would therefore understand that the disputed claim term is a well-recognized structural element (hardware and/or software) of a decoder that obtains a specific output (a residual block image) given a specific input (coefficients) by using a specific process (performing inverse quantization and inverse orthogonal transformation). '238 patent at 38:38-42; Ex. 1, ¶¶ 47-48. Put another way, a POSITA would understand the disputed claim term to refer to a known computing structure within a video decoder that performs the known decoding functions of inverse quantization and inverse orthogonal transformation. Ex. 1, ¶¶ 43-47. Given this understanding, § 112, ¶ 6 does not apply and no construction is necessary. *Prisua Eng'g*, 948 F.3d 1342 at 1354 (“digital processing unit” in a patent directed to generating a displayable video data did not invoke § 112, ¶ 6; the term connoted “an image processing device that people in the art are

generally familiar with”); *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004) (when a claim conveys a circuit “coupled with a description of the circuit’s operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art.”).

This case is similar to recent holdings. For example, one court recently found that “when read in the context” of the record, the claims were directed to a specific class of equipment, and “claim-recited units and subunits” refer to a class of structures within that equipment. *Huawei Techs. Co.*, 2021 WL 150442 at *12-13. Similarly, when a “source localization unit” was claimed as being included in a “digital signal processor” (i.e., “a microprocessor that is specialized for mathematical processing of digital signals”), the “source localization unit” conveyed structure; “namely, software/hardware in a DSP that includes functionality for locating a sound source.” *Vocalife LLC*, 2020 WL 1698779, at *22. As in these cases, the term here refers to software and/or hardware of a known structure (a video decoder) for performing the recited function (inverse quantization and inverse orthogonal transformation on residual block image coefficients). That is, the “unit” term here is a specific class of known structures operating in a specific environment.

Similarly, § 112, ¶ 6 does not apply when the claim term specifies an objective and explains how hardware/software operates within the context of the claimed invention to achieve it. *Linear Tech.*, 379 F.3d at 1319-21 (“circuit [for performing function]” did not invoke § 112, ¶ 6 because the claim recited the “objectives and operations” of the circuit); *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1295, 1301 (Fed. Cir. 2014) (“heuristic [for performing a function]” did not invoke § 112, ¶ 6 when the patent described the operation and objectives of the heuristic), *overruled on other grounds*, 792 F.3d 1339; *Optis Wireless Tech.*, 2020 WL 1692968, at *8 (“‘Control information extractor’ connotes structure; namely, software/hardware in a communication device that includes functionality for configuring transmission information for the downlink control

channel.”).

In this case, the claim itself describes the objectives and operations of the term. Ex. 1, ¶ 48. The claim describes a picture decoding unit that decodes coded picture data. ’238 patent at 38:18-19. Within this context, the structure of the disputed term is configured to (1) begin with a specific input (coefficients) and (2) obtain a specific output (a residual block image) using (3) a specific process (performing inverse quantization and inverse orthogonal transformation). *See* claim 1. The residual block image obtained thereby is then used to “reproduce a block image,” which means to reproduce an unencoded image. *See id.* at 38:44-47; Ex. 1, ¶ 48. As such, the claim itself describes precisely how the structure of this term obtains a residual block image from coefficients. “Under Federal Circuit precedent, such claim recitation of how functionally-defined components interact to achieve a claim-recited objective provides sufficient indicia of structure to maintain the presumption against § 112, ¶ 6.” *Huawei Techs. Co.*, 2021 WL 150442 at *12 (finding terms did not invoke § 112, ¶ 6 when the claim described how the alleged § 112, ¶ 6 terms “cooperate[d] in a specified and detailed manner to convert information in one format (N 66B coding blocks) to another format (one (64*N+1) B coding block) and send it.”).

Section 112, ¶ 6 does not apply. But, assuming § 112, ¶ 6 did apply, the claim term is not indefinite because the specification describes sufficient structure(s), act(s), or material(s) for the term; namely inverse quantizing unit 1405 and inverse orthogonal transforming unit 1406. Ex. 1, ¶ 49. Thus, Defendants cannot make a clear and convincing showing that the term is indefinite. As the specification explains, “the coefficient is transformed into predictive residual picture data by the inverse quantizing unit 1405 as well as the inverse orthogonal transforming unit 1406.” ’238 patent at 22:55-58; *see also id.* at 22:8-13. The inverse quantizing unit 1405 and inverse orthogonal transforming unit 1406 are not mere “black boxes”; instead, they are illustrated within Fig. 1,

which is “a structure of an embodiment of a picture decoding device.” *Id.* at 4:65-67; Fig. 1. As the specification explains, the picture decoding device is part of the picture decoding unit ex309 described in relation to Fig. 29. *Id.* at 36:46-47. The picture decoding unit “decodes the bit stream of picture data by the decoding method corresponding to the coding method as shown in the above-mentioned embodiments to generate reproduced moving picture data” for display. *Id.* at 36:46-54. Moreover, the picture decoding unit is illustrated as coupled to a synchronous bus ex313. *Id.* at 25:40; Fig. 27. As such, the specification describes the picture decoding unit as a structure that is coupled to other physical components to receive, decode, and send data. Ex. 1, ¶ 49.

Even if Defendants were correct that the inverse quantizing unit 1405 and inverse orthogonal transforming unit 1406 are “black boxes,” the disclosure would still convey sufficient structure, as the units are well-known structures with well-known functions, as discussed above. *S3, Inc. v. nVIDIA Corp.*, 259 F.3d 1364, 1370–71 (Fed. Cir. 2001) (holding that even though “the electronic structure of the selector and the details of its electronic operation are not described in the specification,” the specification provided sufficient structure because “a selector is of well known electronic structure and performs a common electronic function”). The inverse quantizing unit 1405 and inverse orthogonal transforming unit 1406 are known structures within the picture decoding unit that are configured to perform the recited functions.

b. Disputed Terms of the '059 Patent

1. “probability table”

| VideoLabs’ Proposed Construction | Defendants’ Proposed Construction |
|---|--|
| No construction necessary | “numbered table containing a probability with which ‘0’ occurs and/or a probability with which ‘1’ occurs” |

Primary Disputes: (1) Whether a “probability table” *necessarily* includes a “table number,” and (2) whether a probability table *must* contain a specific type of probability “with

which ‘0’ occurs and/or a probability with which ‘1’ occurs.”

What the Court Should Find: Neither of Defendants’ proposed limitations are consistent with the plain and ordinary meaning of the term. Moreover, it is obvious that Defendants are trying to add limitations to the term rather than define it because Defendants’ proposed construction uses the words “table” and “probability” rather than providing definitional context to the words or phrase. Thus, no construction is necessary.

Defendants’ construction seeks to improperly limit the term to an exemplary embodiment of the specification—i.e., to *one* specific type of a probability table instead of covering all types of probability tables. Because the patentees did not narrow this term by redefining (using lexicography) or disavowing the full scope of the term, Defendants’ proposed restrictions on the term must fail. *See Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (“There are only two exceptions to th[e] general rule [that terms are given their ordinary meaning]: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.”).

The words “probability” and “table” are well understood and their combination in the claim as a phrase has no specialized meaning in the art that requires construction. Ex. 1, ¶ 51; *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1372 (Fed. Cir. 2003). The “established meanings of the individual words” lead to the “common meaning” of the whole phrase, e.g., a table that stores probability information (in this context, probability information for data to be encoded or decoded). *Altiris*, 318 F.3d at 1372. There is no inherent meaning within the phrase or its constituent terms that would lead to the requirement that a probability table be (1) “numbered” or (2) contain a specific type of probability value, as proposed by Defendants’ construction.

A POSITA would likewise understand the phrase “probability table” by its broad plain

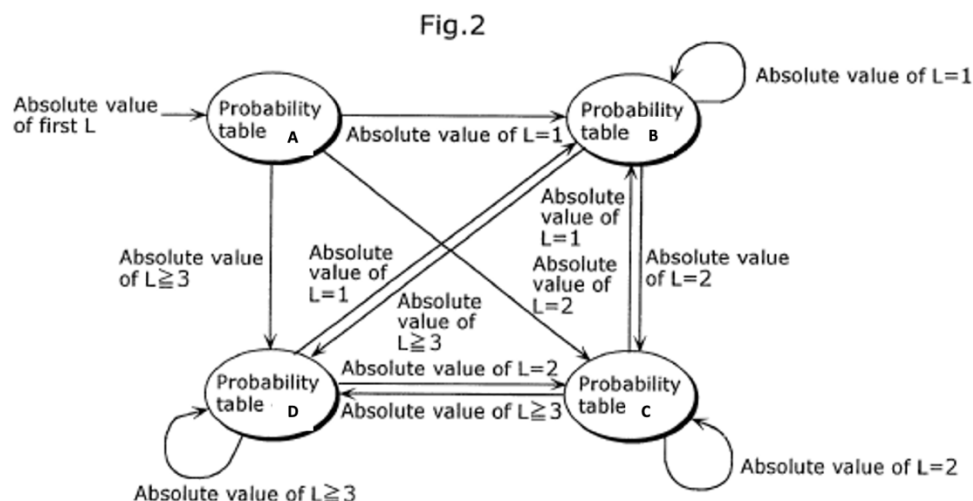
English meaning without importing the restrictions Defendants propose. Ex. 1 at ¶ 21; 51. Probability tables were used in the field of media coding at the time of invention. *Id.* at ¶ 52. A POSITA would understand that probability tables existed in the art that were not limited to either: (1) being “numbered” or (2) containing the specific probability “with which ‘0’ occurs and/or a probability with which ‘1’ occurs.” *Id.* For example, arithmetic coding of a motion vector could have five possible values, integers from -2 to +2. *Id.* at ¶ 57. Other examples that would not be encompassed by Defendants’ proposed construction include those used in IBM’s Q-coder and the arithmetic coder in the JPEG image compression standard. *Id.* at ¶ 59.

Because Defendants have cited no lexicography or disavowal of claim scope to warrant departing from the plain meaning of the term “probability table,” there is no basis to adopt Defendants’ restrictive construction. *Thorner*, 669 F.3d at 1365. Moreover, Defendants make three incorrect arguments that fail to support their limiting construction.

First, Defendants argue that a construction would assist the jury. Opening Br. at 12. Defendants posit, without evidence or expert support, that the two extraneous limitations in their construction “are absolutely necessary for the claimed invention to function.” As a result, Defendants argue that a jury might consider a probability table without the two extraneous limitations to meet the claim language. *Id.* But Defendants’ “jury assistance” straw man argument is to buttress their other flawed directional switching construction (discussed below), not to help the jury better understand the meaning of a probability table in arithmetic video decoding. As noted above, Defendants’ construction does nothing to assist a jury given it uses the same two constituent words “probability” and “table” and simply tacks on improperly narrow limitations around them.

Defendants’ “numbering” requirement incorrectly mandates that the probability tables have an assigned number in order to switch in a predetermined one direction (another disputed

claim term). There is no such requirement. By way of example, probability tables could be assigned letters and transition in “one direction” from A-Z or vice versa. Simply looking at Figure 2 of the patent, one can easily relabel the tables “Probability table A” through “Probability table D,” and transition from one table to the next in “one direction,” e.g., A→D.



'059 patent at Fig. 2 (modified). With respect to the format of the table contents, there is no absolute requirement in the claim or the specification that the values in a probability table have the exact syntax of “the probability with which ‘0’ occurs and/or a probability with which ‘1’ occurs.” Ex. 1 at ¶ 57-62.

Second, Defendants argue that their construction is “consistent” with the claims and specification. Opening Br. at 13-15. While it is true that certain *embodiments* of the specification are “consistent” with Defendants’ construction, nothing in the specification warrants limiting the claims to these embodiments. And Defendants’ attempt to limit the claims to certain embodiments is improper. *Evolution Concepts, Inc. v. HOC Events, Inc.*, 22 F.4th 1361 (Fed. Cir. 2022) (“We have repeatedly held that ‘it is not enough that the only embodiments, or all of the embodiments, contain a particular limitation to limit claims beyond their plain meaning.’”). While the specification does disclose numbered probability tables including probabilities that a “0” or “1”

will occur, it is improper—indeed, a “cardinal sin[]”—to limit a claim’s construction to embodiments recited in a specification. *Phillips*, 415 F.3d at 1320. This is particularly true here, where the well understood plain meaning of a probability table in the art does not connote that the table must be “numbered” or contain “the probability with which ‘0’ occurs and/or a probability with which ‘1’ occurs.” Ex. 1 at ¶¶ 50-62. Therefore, the term “probability table” should not be saddled with the two restrictions that Defendants propose.

In seeking to import limitations from the specification, Defendants point to Figure 8 and its description. But Figure 8 is expressly described as “a probability table contents diagram showing the contents of a probability table *according to the first embodiment of the present invention.*” ’059 patent at 4:8-10 (emphasis added). Neither Figure 8 or its description rises to the level of lexicography or a disavowal of claim scope. Therefore, because the plain meaning of probability table does not require “a probability with which ‘0’ occurs and/or a probability with which ‘1’ occurs,” Defendants’ construction fails as a matter of law.

Defendants also argue without support that “a probability with which ‘0’ occurs and/or a probability with which ‘1’ occurs” is necessary to ensure that the claimed “arithmetic coding” on “a first bit of the binary data” is possible. Opening Br. at 13-14. In essence, Defendants argue that this specific table syntax is the only way the claim will make sense because the claim involves binary data which consists of zeros and ones. As explained by Dr. Richardson, there is no inherent requirement that a probability table contain information in this type of format. Ex. 1 at ¶¶ 56-62. Indeed, probability tables existed at the time of the invention that were not formatted this way (i.e., in binary coding, tables could store a probability of a “least probable symbol”). *Id.*

Third, Defendants argue that statements made during the prosecution of the parent application to the ’059 patent—a different patent application with different claim requirements—

regarding the Karczewicz reference should limit all probability tables in the entire patent family to “numbered tables.” Opening Br. at 13. As an initial matter, these statements are irrelevant to this inquiry. *ResQNet.com, Inc. v. Lansa, Inc.*, 346 F.3d 1374, 1383 (Fed. Cir. 2003) (“Although a parent patent’s prosecution history may inform the claim construction of its descendent . . . prosecution history is irrelevant to the meaning of [a] limitation [if] the two patents do not share the same claim language.”). Nevertheless, the statements did not (and could not) distinguish Karczewicz’s probability tables by arguing that the claimed probability tables necessarily included table numbers because the Karczewicz tables were also “numbered.” *See, e.g.*, Karczewicz (Dkt. 50-4) at Fig. 7b. Instead, and as Defendants concede, Karczewicz was distinguished because it switched tables in *multiple directions*—not because the tables were not “numbered.” As discussed below, whether something switches in “one direction” is not limited to the context of numbered tables (e.g., one could use a lettering scheme and switch tables alphabetically). Limiting this claim term to “numbered tables” is improper, and the Court should reject Defendants’ arguments to the contrary. *Grober v. Mako Prod., Inc.*, 686 F.3d 1335, 1341-43 (Fed. Cir. 2012) (prosecution history does not limit claim to a feature when applicants make no arguments relating to that feature). The prosecution history falls far short of the “exacting” standard to find claim scope disavowal. *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014).

A POSITA would recognize that this claim term does not require the extraneous limitations that Defendants seek. As such, the Court should decline to construe the term to include them.

2. “audio coding unit configured to code an audio signal”

| VideoLabs’ Proposed Construction | Defendants’ Proposed Construction |
|--|---|
| No construction necessary | This term is subject to 35 U.S.C. § 112, ¶ 6. |
| <i>Alternatively</i> , if found to be subject to 35 U.S.C. § 112, ¶ 6, the function is recited in the claim and the structure(s), act(s), or material(s) corresponding to this phrase is voice | <i>Function:</i> code an audio signal <i>Structure:</i> Indefinite |

| | |
|--|--|
| processing unit (ex305) and equivalents thereof. | |
|--|--|

Primary Dispute: Whether the claim term refers to a structure.

What the Court Should Find: Section 112, ¶ 6 does not apply because a POSITA would understand the term to refer to a known structure—an audio encoder.

There is a presumption that § 112, ¶ 6 does not apply because this term does not use the word “means.” *Williamson*, 792 F.3d at 1348. Defendants again fail to carry their burden to rebut this presumption. A term does not invoke § 112, ¶ 6 when “persons skilled in the art would understand the claim language to refer to structure, assessed in light of the presumption that flows from the drafter’s choice not to employ the word ‘means.’” *Prisua Eng’g*, 948 F.3d at 1354. Defendants fail to identify the person of skill in the art or discuss at all how such a person would understand the term. Moreover, Defendants do not discuss the term in the context of the claim or the intrinsic record. Instead, Defendants argue—with no citation to evidence and with no analysis—that the claim term does not recite structure. Mere use of the word “unit” does not necessarily invoke § 112, ¶ 6. Defendants’ conclusory statement to the contrary is insufficient; Defendants cannot carry their burden to overcome the presumption that § 112, ¶ 6 does not apply.

A. To a POSITA, the Term Connotes an Audio Encoder

When the claim term is properly analyzed from the perspective of a POSITA in view of the claim and specification—as required—the term conveys structure. Ex. 1, ¶¶ 64-66. The ’059 patent relates to “coding and decoding picture data.” ’059 patent at 1:11-13. The patent discusses “moving picture coding processing,” and discusses the invention in the context of H.263, a well-known standard for video coding at the time of the invention. *Id.* at 1:33-37; Ex. 1, ¶ 45. The ’059 patent further discusses the invention in the context of systems for receiving video data over a network. *See*, e.g., ’059 patent at Figs. 14, 17. For example, as described in relation to the system

illustrated in Fig. 14, content such as “a music live video” is coded by an electronic device such as a computer, camera, or server. *Id.* at 18:22-28; Fig. 14. The coded content is transmitted to a client, which is an electronic device such as a computer, PDA, camera, cellular phone, “and so forth.” *Id.* at 18:28-34. The clients then decode content. *Id.*

Against this backdrop, a POSITA would understand that the “audio coding unit” is an audio encoder, a well-known structure at the time of the invention. Ex. 1, ¶¶ 64-66. As demonstrated by volumes of extrinsic evidence, a POSITA would recognize that an audio encoder is hardware (i.e., circuitry) and/or software that receives audio data and converts the data into an encoded form (e.g., for transmission or storage). *Id.* As an example, an “encoder” is “any hardware or software that encodes information”—that is, converts the information to a particular form or format. *Id.* at ¶ 66. (quoting Microsoft Computer Dictionary, Fifth Edition (2002)). An audio encoder is simply an encoder for audio data. *Id.* Likewise, an “audio processor,” which a POSITA would understand to include an audio encoder and audio decoder, is “[a]n integrated circuit specially designed for handling sound information, typically used as a principal component of a sound card. Tasks accelerated by such a processor may include compressing and decompressing sound streams.” *Id.* (quoting The New Penguin Dictionary of Computing (2001)). As a further example, a POSITA would understand that audio encoders/decoders (abbreviated as “audio CODECs”) implement software and hardware to encode and decode audio data. Ex. 1, ¶¶ 65-66. Indeed, Dell itself recognizes that some of its products include an “[a]udio CODEC device.” Ex. 1, ¶ 66 (quoting Dell’s website). There can be no question that a POSITA would understand this claim term to apply to structure. As such, § 112, ¶ 6 does not apply.

Assuming § 112, ¶ 6 did apply (it does not), the specification describes sufficient structure(s), act(s), or material(s) for the term, namely voice processing unit (ex305). Ex. 1, ¶ 68.

A voice processing unit or “voice processor” is a type of audio processor that operates on a specific type of audio data—*i.e.*, voice data. *Id.* As such, Defendants are unable to make a clear and convincing showing that the term is indefinite. As discussed above, coding and transmitting content in the ’059 patent would include multimedia content, such as “a music live video.” In performing the encoding, the specification describes that “a voice processing unit ex305 converts a voice signal received by the voice input unit ex205 in conversation mode into digital voice data under the control of the main control unit ex311 comprised of a CPU, a ROM, a RAM and others.” ’059 patent at 18:13-17. As such, the voice processing unit is not a mere “black box;” instead, it is described in structural and operative relation to known physical components. Ex. 1, ¶ 68. The voice processing unit is hardware structure that is coupled to other physical components (*i.e.*, a synchronous bus ex313) to receive, decode, and send audio data. *Id.* at 25:40; Fig. 27; Ex. 1, ¶ 68. Even if the voice processing unit were a “black box,” it nevertheless describes sufficient structure to a POSTA—*i.e.*, audio encoders. *S3, Inc.*, 259 F.3d at 1370–71.

3. “to switch between the plurality of probability tables in a predetermined one direction within each block”

| VideoLabs’ Proposed Construction | Defendants’ Proposed Construction |
|---|---|
| No construction necessary | “from a probability table with a smaller table number to a probability table with a larger table number (<i>i.e.</i> , in ascending order of probability table numbers)” |

Primary Dispute: Whether Defendants can read exemplary embodiments into the claim.

What the Court Should Find: Exemplary embodiments cannot be read into the claims.

No construction is necessary.

Defendants’ construction seeks to improperly limit the term in two ways. *First*, Defendants’ construction requires that a “switch” be based on a “probability table number.” But a “probability table” does not necessarily include a “table number,” as discussed above. As such,

requiring a “switch” to be based on a “table number” is nonsensical in instances when probability tables are designated or indexed by something other than table numbers.

Second, and the principal dispute for this term, Defendants propose that “in a predetermined one direction” should be improperly limited to one specific direction: “in ascending order” from a “smaller number” to a “larger number.” The word “direction” is a plain English word with no specialized technical meaning. Ex. 1 at ¶ 75. “Direction” simply means “the course or path on which something is moving or pointing.” Merriam-Webster, “direction” definition, *available at* <https://www.merriam-webster.com/dictionary/direction>. It does not require the “path or direction” to be only ascending. Indeed, by arguing that an “ascending order” is a direction, Defendants must concede a “descending order” is also a direction. The plain meaning of “direction” also naturally includes many contexts that are not numerically based, such as “up / down,” “clockwise / counterclockwise,” “left / right,” “A to Z,” etc. Ex. 1 at ¶ 75. But Defendants’ construction reads out all of these directions and contexts. As such, there can be no dispute that Defendants’ proposed construction limits the term beyond its plain and ordinary meaning.

Because the word “direction” does not mean “only in ascending order,” Defendants’ construction fails absent a showing of lexicography or disavowal of the full scope of the word. *Thorner*, 669 F.3d at 1365. Defendants make no argument regarding disavowal. And there is no “redefining” of the word “direction” here. The standard for finding lexicography is “exacting” and a patentee must “clearly express an intent to redefine the term.” *Thorner*, 669 F.3d at 1365–66; *GE Lighting*, 750 F.3d at 1309. Courts generally find this exacting standard is satisfied when the patentee uses phrases like “defined” or “herein” and uses quotation marks around the definition. *Infinity Headwear & Apparel, LLC v. Jay Franco & Sons, Inc.*, No. 15-CV-1259 (JPO), 2016 WL 5372843, at *9-10 (S.D.N.Y. Sept. 26, 2016).

Defendants incorrectly argue that the use of the phrases “that is” or “i.e.” in the specification necessarily satisfies the stringent standard of lexicography. Opening Br. at 9. While a patentee’s use of “that is” or “i.e.” in the specification may signal lexicography in some rare circumstances, in others, it does not. *See, e.g., Pfizer, Inc. v. Teva Pharms., USA, Inc.*, 429 F.3d 1364, 1373 (Fed. Cir. 2005) (“saccharides (i.e., sugars)” is not lexicographic); *Timeline, Inc. v. Proclarity Corp.*, 2007 WL 321387 (W.D. Wash. 2007) (“automatically (i.e., without the need for human analysis)” is not lexicographic). The exacting standard of lexicography is not met by examining a phrase or statement in isolation—as Defendants attempt here—but only after considering the entirety of the specification. *Baxalta Inc. v. Genentech, Inc.*, 972 F.3d 1341, 1347 (Fed. Cir. 2020). After this required consideration, a POSITA would understand that lexicography does not apply here. Ex. 1 at ¶ 71.

A passing examination of the supposed lexicographic statement confirms there was no intent to redefine the simple word. The ’059 patent’s specification describes a “First Embodiment” of the invention and proceeds to describe in detail how the probability tables are switched in that *exemplary embodiment*. ’059 patent at 4:41; 6:31-49. Immediately below the detailed disclosure of when and how probability tables are switched, the specification provides a summary (the supposed lexicographic statement): “*As described above*, the probability tables are switched in one direction, *that is*, from a probability table with a smaller table number to a probability table with a larger table number.” *Id.* at 6:50-52 (emphasis added); *see also* 12:25-64 (same). Viewing the statement in context, it is not definitional, but merely summarizes the detailed explanation of the *exemplary embodiment* directly above. There is no clear intent to redefine the word “direction.”

Moreover, a fulsome reading of the specification demonstrates that the patentees chose to use the phrases “that is” or “i.e.” in the specification to provide summary information of prior

descriptions, not to signal lexicography. *See, e.g.*, '059 patent at 8:49-57 (providing further explanation on how probability tables are switched), 10:1-3 (using “i.e.” not to define “probability tables,” but to summarize the previous disclosure), 10:12-13 (same), 10:17-18 (same), 16:10-11 (same). As such, review of the entire specification, as required, demonstrates that the patentees did not use the phrase “that is” or “i.e.” to signal an intent to redefine a word’s plain language.

Importantly, the specification does define other terms. And when the patentees chose to act as lexicographers to define these other terms, they unambiguously did so. For example, the specification defines a sequence generated by a RL sequence generator as an “RL sequence”; the lexicographic intent is unambiguous, as the specification uses the term “hereinafter” and provides quotation marks around the definition. *Id.* at 5:17-19. Likewise, the patentees coined a definition of “RL values” by again using the term “hereinafter” and quotation marks. *Id.* at 5:19-22. As such, the exacting standard of lexicography cannot be satisfied by mere use of “that is.” *Medicines Co. v. Mylan, Inc.*, 853 F.3d 1296, 1306 (Fed. Cir. 2017) (because textual format used by inventor in discussing disputed term was different from format used for lexicographic definitions of other terms, it “lack[ed] the clear expression of intent necessary for a patentee to act as its own lexicographer”); *Abbott Lab ’ys v. Andrx Pharms., Inc.*, 473 F.3d 1196, 1210-11 (Fed. Cir. 2007) (the term “is” does not signal lexicography in light of unambiguous signaling for other terms).

Defendants’ remaining arguments are red herrings: absent lexicography or disavowal, which are not present here, the plain meaning of the term controls. Nevertheless, VideoLabs briefly addresses each. **First**, Defendants argue that a separate limitation of the claim requires not reusing probability tables and thus that “one direction” cannot mean to not reuse probability tables. *See* Opening Br. at 4. VideoLabs agrees: this term requires switching in one direction, not a prohibition against reusing tables.

Second, nothing in the prosecution history requires limiting the term to only an ascending numerical order. Defendants rely on the prosecution history of a different patent application with different claim requirements, which is irrelevant to this inquiry. *ResQNet.com*, 346 F.3d at 1383. Nevertheless, to the extent the prosecution is relevant, it confirms that the plain language of the claim should not be limited. During prosecution of the parent application, the Examiner identified the “context equation” disclosed by Fig. 7b of the Karczewicz reference as disclosing a “one direction” requirement. Ex. 1O at 3. Particularly, the examiner identified that a “context” was switched to different numbers. The applicants noted that the context number of Karczewicz increased and then decreased before increasing again. *Id.*; Dkt. 50-3 at 9. Had the applicants understood and intended the “direction” to be limited to an “ascending order,” they could have simply demonstrated that the context numbers decrease in number. However, the applicants made it clear that “direction” is not so limited by arguing that, in reference’s disclosure, the context numbers did not merely decrease, but instead switched in two different directions. Dkt. 50-3 at 9.

Third, Defendants’ cases do not permit reading embodiments of the specification into the claims. The Federal Circuit is unequivocal on this point. *Evolusion Concepts*, 22 F.4th 1361 (“We have repeatedly held that it is not enough that the only embodiments, or all of the embodiments, contain a particular limitation to limit claims beyond their plain meaning.”). Put another way, the exemplary embodiments of the specification do not limit the claim, and there is no requirement that the specification disclose every possible “direction.” *Thorner*, 669 F.3d at 1367 (“The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope.”).

Rather than explain the term, Defendants simply seek to improperly redefine and limit it. Defendants’ proposed construction should be rejected.

4. “data reading unit configured to read the multiplexed data from said recording medium”

| VideoLabs’ Proposed Construction | Defendants’ Proposed Construction |
|--|---|
| <p>No construction necessary</p> <p><i>Alternatively</i>, if found to be subject to 35 U.S.C. § 112, ¶ 6 the function is recited in the claim and the structure(s), act(s), or material(s) corresponding to this phrase are computer system (Cs or ex111), PDA (ex112), camera (ex116 or ex113), cellular phone (ex114 or 115), STB (ex407), recording/reproducing unit (ex307), LSI (ex117), and/or reproduction apparatus (ex403), and equivalents thereof</p> | <p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Function: read the multiplexed data from said recording medium</p> <p>Structure: Indefinite</p> |

Primary Dispute: Whether the claim term refers to a structure.

What the Court Should Find: Section 112, ¶ 6 does not apply because a POSITA would understand the term to refer to known structure—hardware and software within a decoder that reads data from a recording medium or memory.

This term is not governed by § 112, ¶ 6. Defendants surmise—with no evidence or analysis—that the claim recites no structure. Opening Br. at 25. But under the proper analysis, a POSITA would understand the term to connote structure; namely, a known class of hardware and software within a known environment that reads data from a recording medium or memory. The claim describes the “decoding apparatus” as decoding audio and picture data which, as discussed above, is performed in a known and standardized environment. Moreover, the specification describes an example decoding apparatus in connection with Fig. 11. As described, the decoding apparatus receives a bit stream of coded data, decodes the data, and outputs the decoded data as an “output picture.” ’059 patent at 1:10-45. The specification further describes the environment in which a decoding apparatus operates. As an example, and referring to Figure 14, the specification describes clients (i.e., electronic devices such as computers, PDAs, cameras, set-top boxes (STBs), DVD recorders, and cell phones) sending and/or receiving media content over a network. *Id.* at

Fig. 14; 17:35-18:38. The decoding apparatus is deployed within these clients for decoding data received by the clients. *Id.* at 17:35-38. The received data must be stored on a recording medium or memory upon receipt so that it can be further processed.

A POSITA would understand each of these types of client electronic devices includes known hardware and/or software that is used to read data stored from an internal or external recording media or memory. Ex. 1, ¶¶ 80-81. For example, Fig. 15 shows a mobile phone ex115 with an SD memory card ex207. There are a well-known class of hardware and/or software structures within client electronic devices, such as mobile phones, to read information from an SD memory card. *Id.* Similarly, Fig. 17 shows a laptop computer (e.g., reproduction apparatus 403) and a CD or DVD storage medium ex402. There are well-known hardware and/or software structures within a laptop computer to read information from a recording medium, such as a CD or DVD. *Id.* Likewise, these same types of well-known hardware and/or software structures can be within other client electronic devices, such as a set-top box (STB) ex407 and recorder ex420 to read from media such as DVD ex421 and/or SD memory card ex422. *Id.*

There is no dispute that the claimed “decoding apparatus” conveys sufficient structure to persons of skill in the art. There is also no dispute that this claim term is part of that known structure, as Defendants concede. Opening Br. at 26; *see also* Ex. 1, ¶¶ 81-82. As such, the structure of this term is hardware and/or software of the decoding apparatus that is configured to read multiplexed data from the recording medium or memory. A POSITA would recognize that the purpose of a decoding apparatus is to decode data and, as such, that decoding apparatus must receive data to decode. Ex. 1, ¶ 82. As discussed, such data is stored on a recording medium. Thus, there is no question that reading data was a well-known function of decoding apparatuses at the time of the invention. *Id.* And a POSITA would understand that the claimed “data reading unit” is

hardware / software that reads data from a recording medium or memory, structures that are well defined and ubiquitous in decoding devices at the time of the invention. *Id.*; *see also Huawei Techs.*, 2021 WL 150442, at *12 (Given that the claims are directed to equipment operating in a particular and standardized environment, “the claim-recited units and subunits refer to a broad class of [that environment’s] structures.”).

The claim itself provides significant indicia of the structural nature of this claim term by reciting how it interacts with other claimed structures to achieve the claim-recited objectives. *See id.* Claim 1 recites the objective of the decoding apparatus: to decode data recorded on a recording medium. The claim then recites how the structures of the apparatus interact to achieve this objective. The data reading unit reads data from a recording medium or memory, a demultiplexing unit then processes the data to demultiplex it, and then the separated data is decoded. Indeed, this term parallels the “acquisition unit” term in *Huawei Techs.*, where the acquisition unit acquired data to be coded. 2021 WL 150442, at *6; *Mynette Techs., Inc. v. United States*, 139 Fed. Cl. 336, 362 (2018) (term not governed by § 112, ¶ 6 because it connoted “software, hardware, and/or firmware” configured to read data from memory). The claim in *Huawei Techs.* next described a “converting unit” to encode the data. 2021 WL 150442, at *6. In those circumstances, the court held that “acquisition unit” connoted structure because it cooperated with other units “in a specified and detailed manner to convert information in one format . . . to another format . . . and send it.” *Id.* at *12. The same is true for claim 1 of the ’059 patent: the data reading unit acquires data to be decoded and cooperates with the other structural components of the decoding apparatus to decode the data. In fact, the term here even more clearly connotes structure: while the “acquisition unit” in *Huawei Techs.* merely acquired data, the “data reading unit” here reads data from—and is thus connected to—a recording medium or memory, another known structure. Ex. 1,

¶ 82; *Prisua Eng'g*, 948 F.3d 1342 at 1354 (term connoted structure when it was “operably connected to” other known structures); *Vocalife LLC*, 2020 WL 1698779, at *22 (same).

Assuming § 112, ¶ 6 did apply (it does not), the specification describes numerous structure(s), act(s), or material(s) for the term, such as those listed in the table above. As structure for reading data from a recording medium is present in all client devices that perform media content encoding and decoding (and indeed, all computing devices), there is no question that the specification describes numerous devices that read data from a recording medium. Ex 1, ¶ 83. Defendants’ primary argument appears to be that these devices do not read “multiplexed” data from the recording medium, and instead only read picture data. They are incorrect. While multiplexed data can be any data that is multiplexed, the specification describes an exemplary multiplexed data as combined picture and audio data. *See, e.g.*, claim 1. The specification describes this multiplexed data as being recorded on a storage medium. *See, e.g.*, ’059 patent at 18:52-58; 20:44-47. And the specification describes the devices listed above as reading that multiplexed data from the storage medium: the picture decoding apparatus (disclosed as being present on any of the devices in Figs. 14 and 17) includes a “reproduction apparatus” that “read[s] the coded bit stream recorded on a storage medium.” *Id.* at 20:44-47. With no explanation, Defendants argue that this bit stream is “video information” and not “multiplexed data.” Opening Br. at 27. However, the specification describes “video information” (picture and audio data) as an example of multiplexed data. Ex. 1, ¶ 83; ’059 patent at 20:39-59, claim 1 (the specification describes that a “coded bit stream of video information is transmitted” to a receiver such as a television, and that the picture decoding unit (which includes an audio decoder) decodes the data). A POSITA would understand this video information—transmitted by a broadcasting station transmitting video information to a television—to include both audio and picture data. Ex. 1, ¶ 83. Indeed, the specification describes

an example video as a “live music video” (18:22-23). Defendants’ argument that only picture data is transferred, stored, and read is belied by the specification and the claims themselves.

5. “audio decoding unit configured to decode audio data”

| VideoLabs’ Proposed Construction | Defendants’ Proposed Construction |
|--|--|
| No construction necessary <i>Alternatively</i> , if found to be subject to 35 U.S.C. § 112, ¶ 6, the function is recited in the claim and the structure(s), act(s), or material(s) corresponding to this phrase is voice processing unit (ex305), and equivalents thereof | This term is subject to 35 U.S.C. § 112, ¶ 6. <i>Function:</i> decode an audio signal <i>Structure:</i> Indefinite |

Primary Dispute: Whether the claim term refers to a structure.

What the Court Should Find: Section 112, ¶ 6 does not apply because a POSITA would understand the term to refer to known structure—an audio decoder.

Section 112, ¶ 6 does not apply to “audio decoding unit” for reasons similar to the “audio coding unit” term discussed above. Defendants err in reading the claim term in isolation and failing to consider the term in the context of the entire claim. Against the backdrop of the claim and specification, a POSITA would understand that the “audio decoding unit” claim term is an audio decoder, a well-known structure at the time of the invention. Ex. 1, ¶ 69. Like an audio encoder, this term is hardware (i.e., circuitry) and/or software that receives encoded audio data and converts it to its encoded form. *Id.* As an example, a “decoder” is a “[d]evice or software that converts data in a coded (and usually compressed) form back to the original data state.” *Id.* (quoting Computer Graphics Dictionary (2002)). As discussed above, audio CODECs are well-known.

Assuming § 112, ¶ 6 did apply, the specification describes structure; namely, voice processing unit (ex305) discussed in relation to the “audio coding unit” term. Ex. 1, ¶ 70. In addition to coding audio data, the specification describes this structure as also decoding audio data.’059 patent at 20:15-28. This makes sense, as audio encoders and decoders are often combined

in a CODEC, as discussed above.

6. “receiving unit configured to receive multiplexed data obtained by multiplexing (i) coded picture data that is obtained by coding a moving picture and (ii) audio data that is obtained by coding an audio signal”

| VideoLabs’ Proposed Construction | Defendants’ Proposed Construction |
|---|--|
| <p>No construction necessary</p> <p><i>Alternatively</i>, if found to be subject to 35 U.S.C. § 112, ¶ 6, the function is recited in the claim and the structure(s), act(s), or material(s) corresponding to this phrase are antenna (ex201, ex406, or ex411), modem circuit (ex306), LSI (ex117), STP (ex407), flexible disk drive, camera (ex 113 or ex116), computer (ex111), PDA (ex112), cellular phone (ex114 or ex115), car (ex412), car navigation system (ex413), and/or a transmit/receive circuit (ex301), and equivalents thereof</p> | <p>This term is subject to 35 U.S.C. § 112, ¶ 6.</p> <p>Function: receive multiplexed data obtained by multiplexing (i) coded picture data that is obtained by coding a moving picture and (ii) audio data that is obtained by coding an audio signal</p> <p>Structure: Indefinite</p> |

Primary Dispute: Whether the claim term refers to a structure.

What the Court Should Find: Section 112, ¶ 6 does not apply because a POSITA would understand the term to refer to known structure—a receiver (receiving circuitry that receives data).

Defendants’ purported reason for their position that § 112, ¶ 6 governs is that the structure of the term is too broad. Opening Br. at 28-29. Courts routinely reject this argument. *CA, Inc. v. Netflix, Inc.*, No. 2:21-CV-00080-JRG-RSP, 2021 WL 5323413, at *28 (E.D. Tex. Nov. 16, 2021) (rejecting argument that term “encompasses many structures” and holding there was sufficient structure “even if the term covers a broad class of structures”). As such, Defendants’ argument fails as a matter of law and does not overcome the presumption against § 112, ¶ 6.

When the claim term is properly analyzed, it conveys structure. Ex. 1, ¶¶ 84-85. The ’059 patent, describes systems for receiving and sending data for encoding and decoding. In this context, a POSITA would understand that the claimed “receiving unit” is a receiver (i.e., receiving circuitry that receives data), a well-known structure at the time of the invention. *Id.* As demonstrated by the

extrinsic evidence, a POSITA would recognize a receiver is hardware and/or software of the decoding apparatus that receives data. As an example, the “receiver” in this context is defined as “[t]he incoming portion of any communication hardware system such as a network, a telephone or radio link.” *Id.*, ¶ 85 (quoting *The New Penguin Dictionary of Computing* (2001)). The extrinsic evidence likewise defines receiver as “[a]n electronic device that can detect transmitted signals and present them in a suitable form.” *Id.* While the term may be broad, the record evidence demonstrates that it connotes structure to a POSITA. Moreover, like the “data reading unit” term of claim 1, the claimed “receiving unit” term of claim 2 is part of the decoding apparatus and cooperates with other structures of the apparatus to receive and decode data. *T-Mobile US*, 2017 WL 2190103, at *15 (finding that “receipt unit” and “sending unit” connoted sufficient structure in the context of a particular system and configured for “sending and receiving appropriate data.”).

Even if § 112, ¶ 6 were applicable (it is not), the specification describes numerous structures that receive multiplexed data. In the context of Fig. 14, the specification describes numerous clients receiving multiplexed data and explains that the picture decoding apparatus can be used in any of those clients. ’059 patent at 18:35-38. As such, the specification describes each of these clients as a “receiving unit,” and indeed, Defendants admit that one of the clients includes the claimed receiving unit. Opening Br. at 29-30. Moreover, although Defendants concede that antenna (ex201) is a disclosed “receiving unit,” they ignore other antennas that also receive the data for decoding. ’059 patent at Fig. 17 (antenna ex411, antenna ex406). Likewise, the specification details receiving the data not only by an antenna, but also via wired connection. *Id.* (Cable ex405). As such, Defendants’ proposed structure is unduly limited. Nevertheless, § 112, ¶ 6 is inapplicable to this term as the claim term itself connotes adequate structure to a POSITA.

V. CONCLUSION

No construction is necessary for any of the six terms at issue.

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Respectfully Submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system on February 9, 2022.

/s/ M. Elizabeth Day
M. Elizabeth Day